

SUBSTATION AND RAIL SAFETY EQUIPMENT



Tab 12A



PORTABLE EARTHING EQUIPMENT FOR SUBSTATION

FOR SUBSTATION

Portable Earthing Equipment

Item Code
DSSB-SLE-PEE

Description:

- 3 x 7m Earthing Lead Conductors
- 4 x 1.22m Operating Pole
- 3 x Line Clamp
- 3 x Earth Clamp
- 1 x Carry Bag



PVC Carrying Bags

Item Code
DSSB-SLE-PEE-BAG

Robust fabric reinforced PVC carrying bags can be supplied for the storage and handling of distribution line. These will provide protection of the equipment during transit as well as easing transportation in the field and keeps the earth equipment clean and dry.

Quick release buckles or straps with Velcro fixings are supplied on the bags which also come with a black webbing shoulder strap.

Product Benefits

- Reinforced material
- Easy storage
- Quick release opening
- Carrying strap
- Different colours and sizes available Operating Sockets



PORTABLE EARTHING EQUIPMENT FOR SUBSTATION

FOR SUBSTATION

Operating Poles

Item Code

DSSB-SLE-PEE-OP

Description:

Operating poles are manufactured from a lightweight resin-impregnated, electrical insulation grade fibre glass.

The poles are machined to provide rigid assembly and include a double sided snap action apring locking device. Operating poles are available as 2.44m (8ft) top and bottom single sections or two 1.22m (4ft) sections permanently linked to avoid a 1.22m (4ft) length of pole being fitted with.



Operating Socket

Item Code

DSSB-SLE-PEE-S9D ESI

Description:

OL1 Operating Socket is suitable for the attachment of a line end clamp with a long taper op screw to a P&B style operating pole.

Product Benefits

- Lightweight Alloy
- Rugged construction
- Excellent anti-corrosive properties
- Adaptors available to convert operating poles types/fitting
- Precision machined



PORTABLE EARTHING EQUIPMENT FOR SUBSTATION

FOR SUBSTATION

Earth Leads

Item Code	Short Circuit Rating	Cont. Current Rating
DSSB-SLE-PEE-150EL	17.5kA/2sec	350A
DSSB-SLE-PEE-50EL	8.9kA/1sec	150A

Description:

Earthing Leads is produced from multi-stranded, commercially pure aluminium with an extruded pvc sheath to protect the cable from damage.

The flexible aluminium earth lead comes with tested and approved compression terminations and support sleeves which are used for connecting between a line end clamp and an earth end clamp.

Benefits

- Aluminium is less expensive than copper
- Light and flexible
- Aluminium is less vulnerable to copper theft
- Available in any lengths on request

Further Technical Details:

Aluflex leads are designed to meet specific requirements of ENA technical specification 41/21

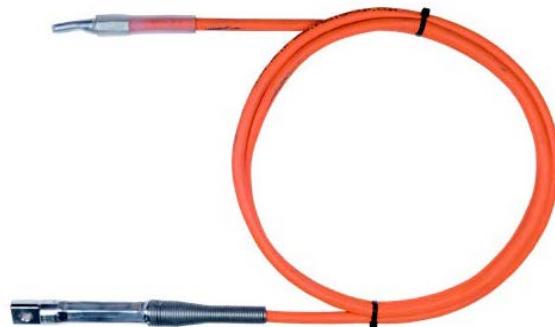
For use in Substations, 150EL is always used as a primary lead. 50EL Arctic Orange is used for Field Equipment Earths, and for the control of impressed voltages.

DSSB-SLE-PEE-150EL is suitable for the CE20 clamp.

DSSB-SLE-PEE-50EL is a standards for other clamps.



DSSB-SLE-PEE-150EL



DSSB-SLE-PEE-50EL



PORTABLE EARTHING EQUIPMENT FOR SUBSTATION

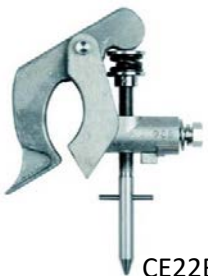
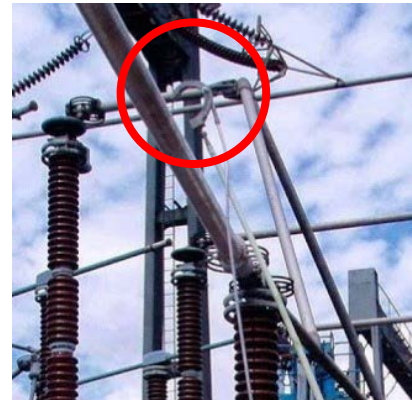
FOR SUBSTATION

Line End Clamps

Item Code	Clamp Diameter	Short Circuit Rating	Max Number of Leads
DSSB-SLE-PEE-CE22A/ESI-L1	10mm-38mm	17.5kA for 2 secs	1 lead
DSSB-SLE-PEE-CE22 A+B	19mm-76mm	17.5kA for 2 secs	1 lead
DSSB-SLE-PEE-CE25	35mm-75mm	38kA for 2 secs	2 leads
DSSB-SLE-PEE-CE22B/ESI-L2	37mm-76mm	17.5kA for 2 secs	1 lead
DSSB-SLE-PEE-CE22C/ESI-L3	60mm-90mm	17.5kA for 2 secs	1 lead
DSSB-SLE-PEE-CE15	90mm	36.5kA for 2 secs	2 leads
DSSB-SLE-PEE-CE27	101.6mm	17.5kA for 2 secs	2 leads
DSSB-SLE-PEE-CE16/5/ESI-L4	127mm only	50kA for 3 secs	3 leads
DSSB-SLE-PEE-CE16/5/.5/ESI-L5	140mm only	50kA for 3 secs	3 leads
DSSB-SLE-PEE-CE51	140mm-160 mm	38kA for 2 secs	2 leads
DSSB-SLE-PEE-CE50	190mm-200mm	38kA for 2 secs	2 leads
DSSB-SLE-PEE-CE71	220-250mm	17.5kA for 2 secs	1 lead

Product Benefits:

- Lightweight
- Precision machine for rigidity



PORTABLE EARTHING EQUIPMENT FOR SUBSTATION

FOR SUBSTATION

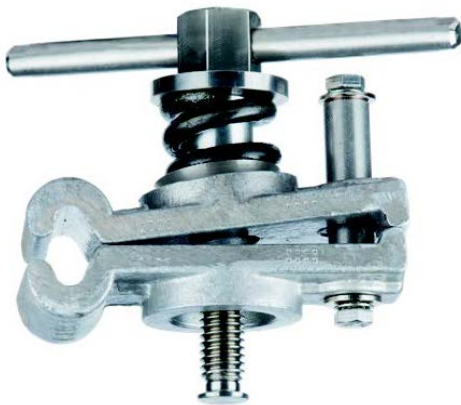
Earth End Clamp

Item Code	Earth Tape Thickness (mm)	Earth Tape Width (mm)	Short Circuit Rating
DSSB-SLE-PEE-CE20/ESI-E1	3.2 - 6.5mm	38 - 50mm	38kA/2sec
DSSB-SLE-PEE-CE20/2	3.2 - 6.5mm	39 - 50mm	38kA/2sec
DSSB-SLE-PEE-CE21	3.2 - 13mm	25 - 50mm	17.5kA/2sec

For Application to clean or dirty copper or aluminium strip.

Note: When secured the spring shall be fully compressed and this shall be readily visible.

Tested to 38kA for 2 secs



DSSB-SLE-PEE-CE20/ESI-E1



DSSB-SLE-PEE-CE20/2



DSSB-SLE-PEE-CE21



PORTABLE EARTHING EQUIPMENT FOR SUBSTATION

FOR SUBSTATION

Carrying Case (Very Heavy Duty)

Item Code
DSSB-SLE-PEE-CC



PORTABLE EARTHING EQUIPMENT FOR SUBSTATION



PORTABLE EARTHING EQUIPMENT FOR TRANSMISSION

FOR TRANSMISSION

Portable Earthing Equipment

Item Code
DSSB-TLE-PEE

Description:

- 3 x 7m Earthing Lead Conductors
- 4 x 1.22m Operating Pole
- 3 x Line Clamp
- 3 x Earth Clamp
- 1 x Carry Bag



PVC Carrying Bags

Item Code
DSSB-TLE-PEE-BAG

Robust fabric reinforced PVC carrying bags can be supplied for the storage and handling of distribution line. These will provide protection of the equipment during transit as well as easing transportation in the field and keeps the earth equipment clean and dry.

Quick release buckles or straps with Velcro fixings are supplied on the bags which also come with a black webbing shoulder strap. A customer logo or reference numbers can be printed on the carry bag if required.



PORTABLE EARTHING EQUIPMENT FOR TRANSMISSION

FOR TRANSMISSION

Operating Poles

Item Code
DSSB-TLE-PEE-OP

Product Benefits:

- Open weave hand grips
- Rain shields available
- snap action' button joints
- Lightweight rigid sections

Telescopic Pole
(retracted)



Telescopic Pole
(extended)



Running Earth CE23/A

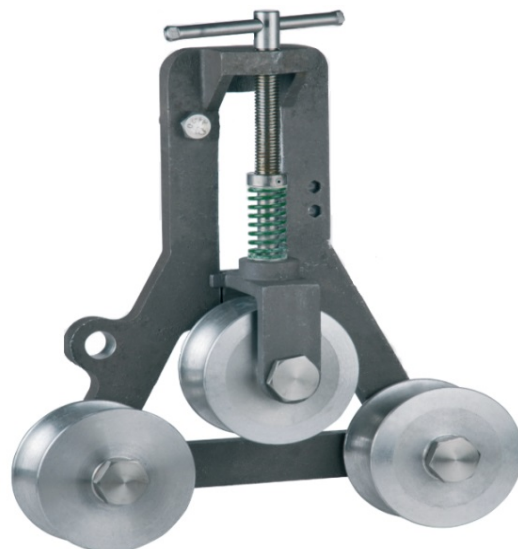
Item Code
DSSB-TLE-PEE-CE23/A

The CE23/A Running earth clamp is designed specifically for earthing line conductors during "Stringing" operations.

CE23/A running earth enables the cable to run freely between contact roller faces whilst providing a positive contact to earth. The earth is anchored to a convenient position using the lanyard locating hole.

The maximum size of conductor that can be accommodated is 42mm. The CE23/A has a short circuit rating of 18kA/1s and a continuous current rating of 300A.

Improved cable fixing location offers improved strength, suitable for PB50 and PB120 palm terminations.



PORTABLE EARTHING EQUIPMENT FOR TRANSMISSION

FOR TRANSMISSION

Earth Leads

Item Code
DSSB-TLE-PEE-EL



Product Benefits:

- Aluminium is less expensive than copper
- Light and flexible
- Aluminium is less vulnerable to theft than copper
- Available in any lengths on request



Line End Clamps

Item Code
DSSB-TLE-PEE-CE13/A
DSSB-TLE-PEE-CE69

The CE13/A line end clamp is intended to be apply by means of an operating socket, which is attached to an OL1 insulated operating pole and designed to be applied in a near horizontal position, from the tower cross arm over tension set insulators to the conductor. The CE13/A clamp accomodates a range of conductors from 19mm to 42mm.



CE13/A

The CE69 is to be applied in either an upward or downward direction and only by means of an OL1 operating socket attached to an insulated operating pole. The spring loaded jaws enable the clamp to be slipped easily over the line conductor and retains the clamp position whilst the operating screw is being tightened or loosened. The clamp is suitable for application to conductors ranging from 13mm to 46mm.



CE69



- *Solid construction to give extended service*
- *Proven service record use by ESI for 40 years*
- *Lightweight and good corrosion resistance.*

PORTABLE EARTHING EQUIPMENT FOR TRANSMISSION

FOR TRANSMISSION

Earth End Clamp

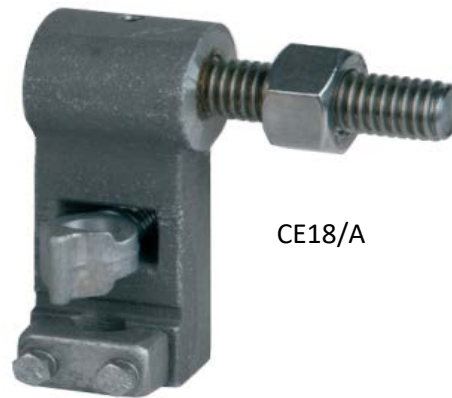
Item Code
DSSB-TLE-PEE-CE10/A2
DSSB-TLE-PEE-CE18/2

The CE10/A2 clamp is for direct application by hand to steelwork. The large thumbscrew of the device has a captive hardened steel tip which penetrates through painted, weathered or non-conductive surfaces and indents into the steel work, ensuring a strong connection to earth potential.

The CE18/A clamp is for earthing the line conductor over the tension set insulators to tower arm coupling during maintenance. It bolts to the coupling through the clearance hole for the arcing horn bolt which is removed prior to earthing.



CE10/A2



CE18/A



PORTABLE EARTHING EQUIPMENT FOR TRANSMISSION

FOR TRANSMISSION

CE60 Sparrow Plate

Item Code
DSSB-SLE-PEE-CE60

Used to provide a common point of connection for portable drain earths that will permit the safe and effective control of induced currents and voltages.



The new CE60 '2014 pattern' Sparrow Plate is a multiple earth tower bonding plate. The registered design is for the control of induced currents and provides a common point of connection for earths which will permit the safe and effective control of induced currents and short circuit.

Manufactured from aluminium alloy, it can be accommodate multiple earths. They are also provided with connections for interconnecting leads fitted with ferrule type terminations. Six thumb screws fitted with (replaceable) hardened tips effectively bond to the tower structure.

Also available is the CE84 Transmission line DrESS tee connector employing cable clamps for use with the bonds having ferrule terminations. Additionally, a new 'back to back' CE60 Sparrow Plate fitting kit has been developed and tested.

The short circuit rating for the CE60 Sparrow Plate is 31.5kA/1s and the continuous current rating is 900A.

Product Benefits:

- Lightweight aluminium alloy
- Excellent corrosion resistance





PORTABLE EARTHING EQUIPMENT FOR DISTRIBUTION LINE

DISTRIBUTION LINE EARTHING KITS

Distribution Line Earthing Kit - DLE/1

Item Code
DSSB-DLE-PEE-DLE/1

Description:

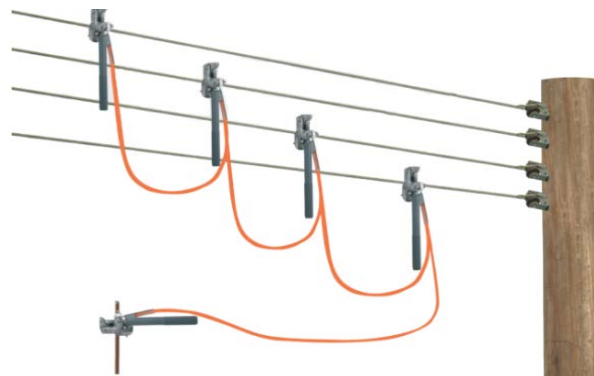
The 33kV standard distribution line earthing kit is supplied with parking bar, S9B clamps with a short taper operating screw, orange aluflex earth lead and an earth end clamp.



LV Earthing Kits

Item Code
DSSB-DLE-PEE-LVEK

The LV Earthing Kits employ S9B Conductor clamps fitted with pvc operating handles for overhead conductor sizes from 3.0 to 27.0mm diameter. Single phase, 3-phase, 3 4 or 5 wire assemblies can be assembled using the appropriate number of clamps and interconnecting leads, to provide portable shorting kits.



Further technical details:

- S9B line end clamp is tested to 17.5kA for 2 seconds, although the short circuit withstand level of the complete assembly is dependent on the size of the interconnecting lead used.
- Typically, a 50mm² lead will withstand 8kA for 1 second.



PORTABLE EARTHING EQUIPMENT FOR DISTRIBUTION LINE

DISTRIBUTION LINE EARTHING KITS

Line End Clamps CE62

Item Code
DSSB-DLE-PEE-CE62

The Line End Clamp (sometimes referred to as a phase or conductor clamp) is precision manufactured from a robust aluminium casting with stainless steel fittings.

The CE62 incorporates a stainless steel jaw, which is spring loaded to reduce application and removal time associated with clamps of the screw type. CE62 is suitable for a conductor range between 4mm and 20mm

These products have been mechanically and electrically tested to ensure compliance with the relevant standards.

Three interconnected CE62 clamps can be loaded onto the DH1A application head for rapid, snap on application to the conductors.



Line End Clamp S9B

Item Code
DSSB-DLE-PEE-S9B

The S9B is designed to hook onto the conductor to become self-supporting whilst the operating screw is tightened or loosened. S9B is available with a short, tapered ring type or ISO style operating screw and is suitable for a conductor range between 6.3mm and 38mm diameter.

Product Benefits

- Tested to 17.5kA for 2 seconds (25kA/1s)
- Solid construction for extended service
- Proven service record used by ESI for over 40 years
- Light weight and good corrosion resistance



PORTABLE EARTHING EQUIPMENT FOR DISTRIBUTION LINE

DISTRIBUTION LINE EARTHING KITS

Earth End Clamps

Item Code
DSSB-DLE-PEE-S9A

Description:

It is suitable for application to flat, clean, aluminium or copper bar. 12.7mm thick or 6.4 to 20mm round conductor or earth rod. The S9A is also available with short or long insulated handle, a hand applied cross pin, ring or tapered style operating screw.

Product Benefits

- Tested to 17.5kA for 3 seconds (25kA/1s)
- Solid construction to give extended service
- Proven service record used by ESI for over 40 years
- Light weight and good corrosion resistance
- No plated components



Earth Leads

Item Code
DSSB-DLE-PEE-EL

Description:

Earth leads are produced from multi-stranded, commercially pure aluminium with an extruded PVC sheath, either in clear or opaque 'arctic' orange grade to protect the cable from damage.

Flexible aluminium earth leads with approved compression terminations and support sleeves are used for interconnecting conductor clamps and to various earth points. The standard nominal cross section is of 50,70, 95, 120 or 150 sq.mm and is recommended according to the fault level of the system. Leads are also available in blue or and green colored PVC sheaths. Other colours available on request.



Product Benefits

- High visibility
- Less expensive than copper
- Light and flexible
- Less vulnerable to copper theft
- Available in any lengths on request



PORTABLE EARTHING EQUIPMENT FOR DISTRIBUTION LINE

DISTRIBUTION LINE EARTHING KITS

Operating Pole Kit

Item Code
DSSB-DLE-PEE-0091/002356
DSSB-DLE-PEE-0091/002061
DSSB-DLE-PEE-0091/002470
DSSB-DLE-PEE-0091/002480
DSSB-DLE-PEE-0091/001987
DSSB-DLE-PEE-0091/002559

Description:

The Operating pole kit is suitable for applying a range of isolation earth leads to designated earth points and overhead cables.

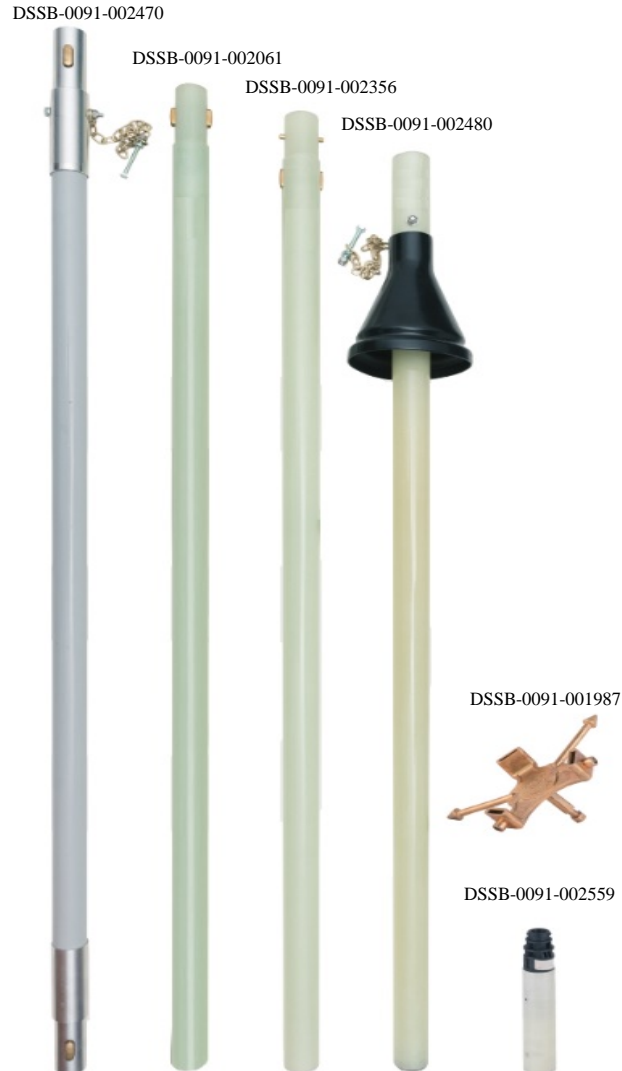
Operating poles are manufactured from a lightweight resin-impregnated, electrical insulation grade fibre glass.

A number of intermediate poles can be selected to make up a longer length pole. The precision snap action joints and tight tolerances minimise flexure of the pole assembly. The lower pole is supplied with a on-grip to provide a guaranteed grip., and a rain shield is also fitted to keep this section dry.

A bag is provided for careful storage and handling.

The Operating Pole Kit comprises:

- 1 X primary insulator pole
- 3 X intermediate poles
- 1 X top pole
- 1 X bottom pole
- 1 X dispenser head assembly
- 1 X carry bag



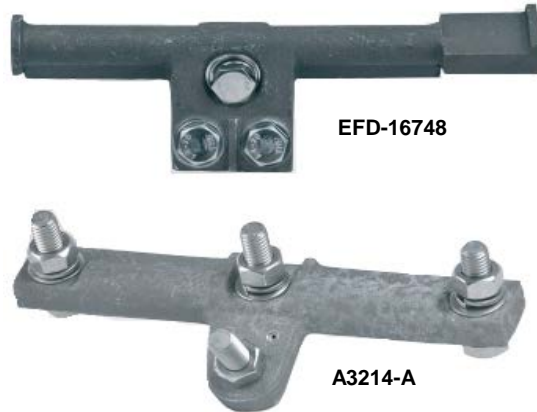
DISTRIBUTION LINE EARTHING KITS

Cluster Bars

Item Code
DSSB-DLE-PEE-EFD-16748
DSSB-DLE-PEE-A3214-A

Description:

The cluster bar is an attachment bolted to the centre of 3 conductor clamps and facilitates the parking of the other two conductor clamps with interconnecting leads, whilst the assembly is fitted or removed from the distribution line. Type EFD-16748 is also suitable for cross arm clamp.



Product Benefits

- Solid construction for extended years service
- Proven service record used by the ESI for over 40 years
- Used world wide
- No plated components



Terminal Plates

Item Code
DSSB-DLE-PEE-TP

Description:

As an alternative to the cluster bar a terminal plate can be specified. There are several types of terminal plates available for mounting on to the operating pole.

Multi point aluminium plate, for interconnecting phase to clamp leads and down leads. Type A is also available with hook.



DISTRIBUTION LINE EARTHING KITS

Cross Arm Clamp

Item Code

DSSB-DLE-PEE-CE10/A

Description:

The type CE10/A clamp is suitable for cross arms up to 13mm thick. Manufactured from a lightweight aluminium alloy, they have a stainless steel operating screw fitted with a hardened steel tip to penetrate painted and non-conductive surfaces, to ensure a low resistance earth connection. All clamps are designed with an ultimate strength well in excess of normal working loads and are type tested at normal loading before being approved for production.



Product Benefits

- Lightweight
- Good corrosion resistance
- Solid construction for extended years



PVC Carrying Bag

Item Code

DSSB-DLE-PEE-BAG

Description:

Robust fabric reinforced PVC carrying bags can be supplied for the storage and handling of distribution line earthing kits.



These will provide protection of the equipment during transit as well as easing transportation in the field and keeps the earth equipment clean and dry.

Quick release buckles or straps with Velcro fixings are supplied on the bags which also come with a black webbing shoulder strap.

Product Benefits

- Reinforced material
- Easy storage
- Quick release opening
- Carrying strap
- Different colours and sizes available



DISTRIBUTION LINE EARTHING KITS

Earth Discharge Rod

Item Code
DSSB-DLE-PEE-EDR

Standard earth rods are manufactured from either 16mm (5/8") or 19mm(3/4") diameter steel cored copper bonded rods and are usually supplied in 850mm sections. Other lengths also available.

The rod can be supplied with a split connector clamp to accept the termination of the down lead. Alternatively, a lightweight aluminium earth end clamp type S9A fitted with an insulated handle can be supplied.

Earth rod has high tensile strength, low carbon steel core. 99.95% pure copper is applied electrolytically and forms a metallurgical bond between the steel core and the copper. This combination makes the rod ideal for deep driving whilst also providing lasting resistance to corrosion.

Earth rods can be clustered using an earth nest. They can also be extended by using thread couplings. This facilitates deep driving and ensures continual contact between the rods both during and after installation. The coupling also protects the earth rod threads during installation with the driving head.



PORTABLE EARTHING EQUIPMENT FOR DISTRIBUTION LINE

DISTRIBUTION LINE EARTHING KITS

Operating Sockets

Item Code
DSSB-DLE-PEE-S9D ESI

Description:

OL1 Operating Socket is suitable for the attachment of a line end clamp with a long taper op screw to a P&B style operating pole. Sprung loaded.

Product Benefits

- Lightweight Alloy
- Rugged construction
- Excellent anti-corrosive properties
- Adaptors available to convert operating poles types/fitting
- Precision machined



Voltage Detectors (WD6B/D3A Voltage Detector)

Item Code
DSSB-DLE-PEE-WD6B/D3A

Description:

The Westminster WD6B/D3A Voltage Detector unit is capacitive type audible and visual detector deigned for outdoor use in conjunction with the live line operating poles.

The detector should be tested before an operation. It is also possible to verify the detector using a separate proving unit, type MD, which can be ordered separately.

Product Benefits

- Visible and audible detection
- Suitable for fitting to standard Operating pole Sections
- Test facility
- Battery operated
- Rugged construction
- Available for 5-12kV, 10-36kV and 50-140kV



DISTRIBUTION LINK BOX EARTHING KITS

The Link Box (switching point) Earthing Kits are available for range of designs and are used whilst maintenance, electrical diversion or cable testing is undertaken

Product Benefit:

- Simple to apply
- High insulation rating
- Supplied in a protective carrying bag
- Robust construction
- Fully tested & type registered
- Special clamp design

CE80 Link Box Short Term Temporary Earth Kit (Bronze/Copper Temporary Kit)

Item Code
DSSB-EFU-19311

Description:

Comprising 4-off CE80 sprung loaded insulated bronze clamps, connected by flexible copper stranded cables. To be used upon a Link Box for temporary earthing whilst main earthing kit is applied.

Products Details:

Current rating: 150A/5mins
 Short circuit rating: 4.9kA/1s
 Insulation rating: Typically 2kV/1min
 Conductor size: 1-1 /2" x 1/2" nominal



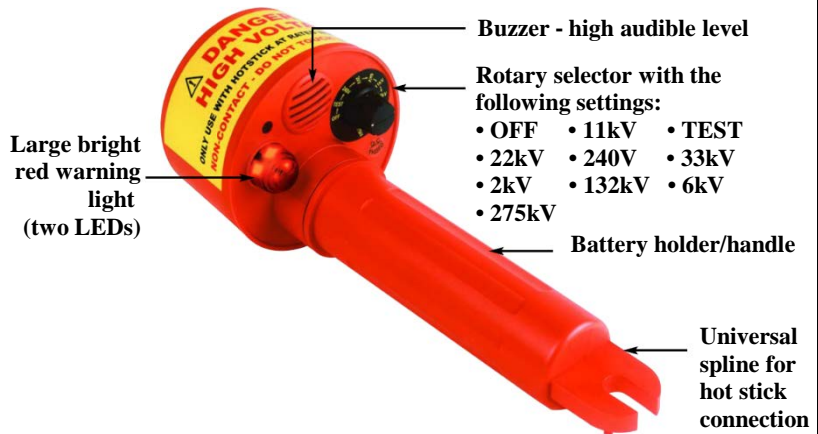


VOLTAGE DETECTOR

VOLTAGE DETECTOR

Non-Contact High Voltage Detector

Item Code
DSSB-SSE-PEE-278HP



Features:

- Protection class : IP65
- 3 LED indicators in a circle for easier viewing in any directions (360° LED indication)
- Voltage bright LED visual indication
- Sound indication
- Power source: 1.5V "C" type battery x 3
- Compatible with most hot sticks.
- Lightweight, robust & compact

Specifications:

- Operating temperature : -10° ~ 50°C
- Storage temperature: -20°C ~ 60°C
- Humidity : 85%R.H @40°C
- Case height : 265mm
- Case width : 117mm
- Weight (batt incl.) : Approx. 600g
- Power source : 1.5 "C" x 3 alkaline batteries

Personal Safety H.V Voltage Detectors

Item Code
DSSB-SSE-PEE-286SVD (M)

The 286 SVD is a sensor for sensing AC High Voltage. It provides electric engineering personnel, power engineering personnel, firefighting personnel and instrument equipment workers with prominent warning when approaching high voltage projects.



Personal Safety Voltage Detectors

Item Code
DSSB-SSE-PEE-288SVD (M)

The 288 SVD consist of an internal pick up AC sensor plate, a test (oscillator) and diagnostic circuit, an adjustable threshold comparator, a sound annunciator (buzzer), a visual indicator (super bright led) and 9V battery, all enclosed into the robust 'beeper' style case.



VOLTAGE DETECTOR

VOLTAGE DETECTOR

Beacon Voltage Detector

Item Code
DSSB-SSE-PEE-BVD

Beacon is designed for both indoor and outdoor use as the circuitry is housed within a durable plastic moulded body.

With an audible alarm, and visible warning light, the Beacon is simple to use, and is suitable in poor visibility. The unit is a capacitive type and does not require a download, which greatly reduces the risk to the operator caused where fault protection can be grounded.



- Visible and audible detection.
- Suitable for fitting to standard operating poles head.
- Built-in test facility
- Battery operated (easy change)
- Rugged construction
- Voltage ranges 5-12kV and 10-36kV available
- Twin LED indication
- Lightweight
- Easy to use
- Supplied in a sturdy carry case

Benefits

- Built in test facility
- Battery operated. (Easy to change)
- Rugged Construction
- Lightweight

Supplied with

- Durable case
- Y Contact Probe
- Universal Castellated Adaptor
- Long Taper Operating Socket Adapter.

VOLTAGE DETECTOR

VOLTAGE DETECTOR

WD6B/D3 Voltage Detector

Item Code
DSSB-SSE-PEE-WD6B/D3-5/12
DSSB-SSE-PEE-WD6B/D3-10/36
DSSB-SSE-PEE-WD6B/D3-50/140

WD6B/D3 is a robust construction, the circuitry is housed within the tubular body. The unit is suitable for fitting to any Pole section as a large range of adaptors is available.

Voltages are indicated with an audible and visual warning, and the light is bright enough so that it can be seen in poor visibility conditions.

Available in range of 5-12kV, 10-36kV and 50-140kV



DS/MS/VA Voltage Detector

Item Code
DSSB-SSE-PEE-DS/MS/VA

The DS/MS/VA comes in five main components-

- The Contact Probe can be supplied as a Mushroom, Pointer or "Y" probe.
- The Extension can be supplied to suit The relevant range of voltage.
- The Adaptor can be supplied at an angle of 900 or 600.
- The Main Body houses The voltage detector.
- The Handle provides suitable insulation from the voltage being tested, and provides storage for the main body when not in use.
- Range includes 3.3kV, 5-12kV & 10-36kV

Benefits

- Robust Construction
- Lightweight
- Fully interchangeable components
- Audible and Visual Warning



VOLTAGE DETECTOR

VOLTAGE TESTER

Prüfball SPB Digital



500 V- or 1000 V-LCD available

NEW Switchable load now also with CAT IV 1000 V

The Prüfball SPB digital combines modern microcontroller applications with approved features of the analog Prüfball - robust, precise and maintenance-free

- One-piece safety casing made of solid rubber, extremely voltage proof, unbreakable, dust- and waterproof
- Direct reading of all functions without pressed buttons
- Phase, phase sequence and continuity test,
- Additional load (RCD-tripping)
- Reliable phase sequence test by microcontroller analysis, possible with gloves
- Maintenance-free
- CAT IV 1000 V



Type	Item Code	Phase-/ phase sequence test	Continuity test	Additional load 30 mA-RCD-tripping	LCD value
SPB 500L 50-500 V	DSSB-RSE-VT-81422	Yes	Yes	Yes	Yes
SPB 1000L 50-1000 V	DSSB-RSE-VT-81423	Yes	Yes	Yes	Yes

VOLTAGE TESTER

VOLTAGE TESTER

Prüfball SPB Analog



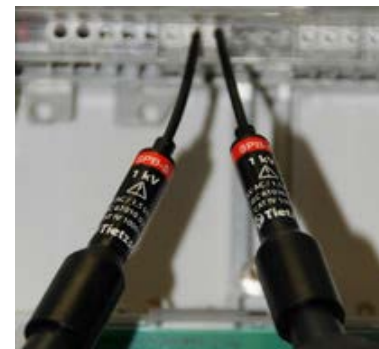
500 V or 1000 V measurement range available

NEW

Direct voltage indication **without** push buttons! - CAT IV 1000V
Buttons only for additional load

The Prüfball SPB is the right voltage tester for operation in energy supply - robust, precise, maintenance-free.

- One-piece safety casing made of solid rubber, extremely voltage-proof, unbreakable dust- and waterproof
- Easy operation, clear indication
- Phase, phase sequence and continuity tester, RCD-tripping
- Reliable phase sequence test by microcontroller analysis, possible with gloves
- Without battery, maintenance-free lifelong
- CAT IV 1000 V



VOLTAGE TESTER

Type	Item Code	Phase-/ phase sequence test	Continuity test	Additional load 30 mA-RCD-tripping	Vibration induction for load	Acoustic indication for load
SPB 500B 50-500 V	DSSB-RSE-VT-81411	Yes	Yes			
SPB 1000B 50-1000 V	DSSB-RSE-VT-81414	Yes	Yes			
SPB 500PR 50-500 V	DSSB-RSE-VT-81401	Yes	Yes	Yes	Yes	
SPB 1000PR 50-1000 V	DSSB-RSE-VT-81404	Yes	Yes	Yes	Yes	
SPB 500PRA 50-500 V	DSSB-RSE-VT-81402	Yes	Yes	Yes		Yes

VOLTAGE TESTER

Prüfball SPB-UB for subways



NEW
 with switchable load to determine
 interference voltage - CAT IV 1000 V


 EN/IEC 61243-3
 CAT IV 1000 V

- One-piece safety casing made of solid rubber, extremely impact resistant, dust- and waterproof
- Highest safety against surge voltage CAT IV, 1000 V
- Direct voltage indication by red LED and backlit LCD
- Integrated self-test by green LED and LCD
- Extension and magnet for easy testing at third rails



VOLTAGE TESTER

Type	Item Code	Self-test with green LED	Single pole voltage warning	Add. Load, to determine interference volt	LCD Value	Angled ext.	Magnet for rail
SPB 1000L-UB 50-1000V	DSSB-RSE-VT-81391	Yes	Yes	Yes	Yes		
SET SPB-UB 50-1000V	DSSB-RSE-VT-81390	Yes	Yes	Yes	Yes	Yes	Yes



DISCHARGED ROD

SOFT DISCHARGED ROD

HOT STICK

Item Code
DSSB-SSE-PEE-HS120 (M)
DSSB-SSE-PEE-HS500 (M)

- Can be attached to the 275 HP proximity Detectors and contact Capacitive Detectors 21 x HVD switch disconnectors.
- Universal "sunrise" head attachment to fit special tool fittings.
- Head Section rated at 100kV per 300mm (5min)
- Comes complete with sunrise fitting and fuse extractor
- 3 x 1.8 meter sticks; 1 x 1.2 meter head section.



HS-500

HS-120

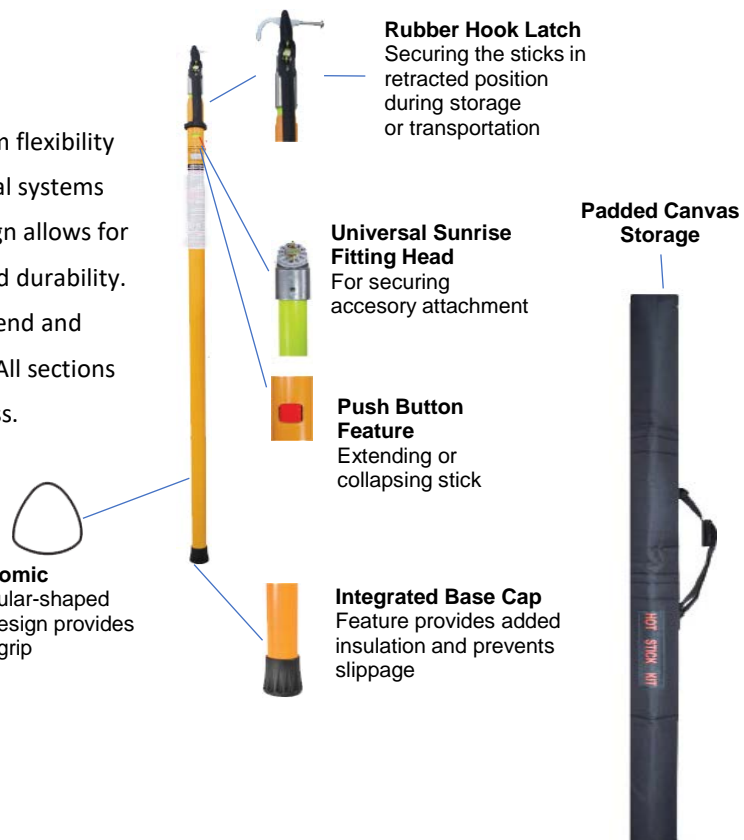
TELESCOPIC HOT STICK

Item Code
DSSB-SSE-PEE-HS175 (M)

The HS-175 Telescopic Hot Stick provides maximum flexibility and access for linesman needing to access electrical systems from working distance. Its unique triangular design allows for easy operation without compromising strength and durability. The HS-175 has been designed to telescopically extend and retract into itself with integrated locking buttons. All sections are made from high grade electrical rated fiberglass.

APPLICATIONS

- Opening and closing switches
- Overhead switch operation
- Fuse replacement
- Lamp replacement
- Cleaning electrical fittings
- Instalation of temporary clamps
- Tree trimming



DISCHARGED ROD

SOFT DISCHARGED ROD

HIGH VOLTAGE (HV) DISCHARGE STICK/ROD (GERMANY)

Item Code	Dimensions (cm) x Weight	Damping Resistor	Discharge Capacitor	kV
DSSB-EA-HVDR-EST35	50 (L) x 0.95kg	10K ohm	6 mfd	35
DSSB-EA-HVDR-EST50	136 (L) x 1.9kg	100K ohm	6 mfd	50
DSSB-EA-HVDR-EST75	156 (L) x 2.2kg	150K ohm	3 mfd	80
DSSB-EA-HVDR-EST100	176 (L) x 2.5kg	200K ohm	2 mfd	110
DSSB-EA-HVDR-EST150	208 (L) x 2.85kg	300K ohm	2 mfd	150

High Voltage discharge probe with built-in resistor ensures controlled and reduced discharge of live cables up to 35 kV. The pole is 50 cm long and weighs only 0.95 kg. Resistor is 10kohm and maximum capacitance is 6 uF. Avoid damage to the cables as a result of direct ground / short circuit. Safe discharging of visual grounding. PS: These rods are available in several sizes with voltages up to 150 kV.



EARTH DISCHARGE ROD

Item Code	Voltage
DSSB-EA-EDD-ER15	for use up to 15kV
DSSB-EA-EDD-ER 35	for use up to 35kV
DSSB-EA-EDD-ERR 15	for use up to 15kV
DSSB-EA-EDD-ERR 35	for use up to 35kV

***ER= without Discharge Limiting Resistor

***ERR= with Discharge Limiting Resistor



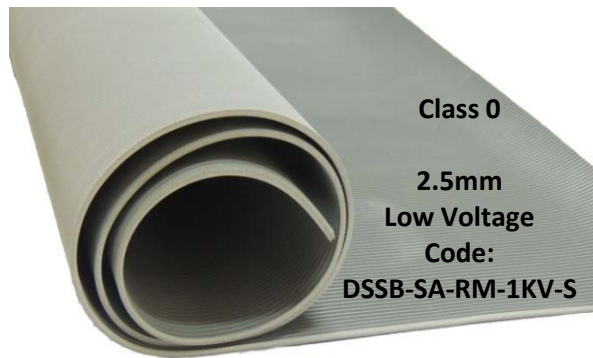
DISCHARGED ROD



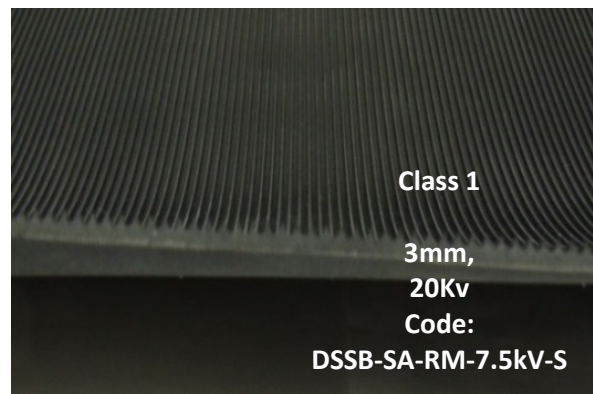
RUBBER MAT

SUBSTATION RUBBER MAT (Low Voltage)

Item Code	Class	Size
DSSB-SA-RM-1kV-S	0	10000mm x 915mm x 2.5mm
DSSB-SA-RM-7.5kV-S	1	10000mm x 915mm x 3.0mm



IEC Standard 61111:2009	Recommended Use Up to
Class 0	1.0kV
Class 1	7.5kV
Class 2	17.0kV
Class 3	26.5kV
Class 4	36.0kV



SPECIFICATIONS:

- Hardness = 70 ± 5 Duro
- Minimum tensile strength = 350 ± 50 PSI
- Specific gravity = 1.75
- Elongation at break = 150 ± 50%

FINISHES:

Black colour, smooth plate or fabric impression finish.

ADVANTAGE OF CLOTH IMPRESSION ARE:

- ~ Antislip both sides
- ~ Easier for rolling instruments/ equipments
- ~ Easier to clean than ribbed matting

Corrugated Matting

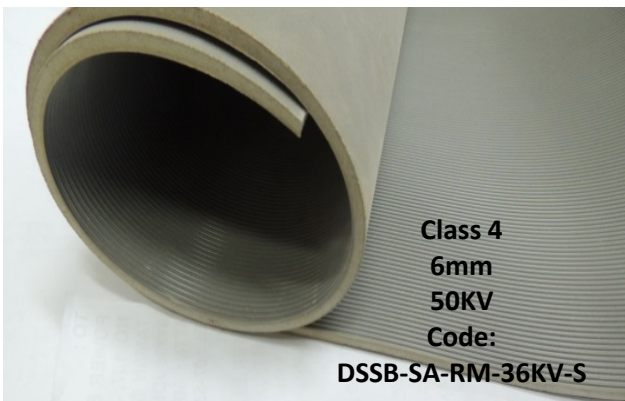
Corrugated with pointed corrugations or ribs running lengthwise. These mattings are used for flooring in many other places. Specially made for long lasting services. Won't curl, shrink or separate. Easy to clean substation. Power Plants, Electrical Installation switchboard.



RUBBER MAT

SUBSTATION RUBBER MAT (High Voltage)

Item Code	Class	Size
DSSB-SA-RM-17kV-S	2	6000mm x 5mm x 1000mm
DSSB-SA-RM-26.5kV-S	3	6000mm x 5mm x 1000mm
DSSB-SA-RM-36kV-S	4	6000mm x 6mm x 1000mm



RUBBER MAT



Delta Sama Jaya Sdn.Bhd.



DELTA SAMA JAYA
www.substation.com.my

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